

Remarks

Claims 1-12 are pending in this application.

Per the Examiner's request, the Applicant is concurrently filing replacement formal drawings by way of a Letter to the Official Draftsperson. However, to expedite prosecution and ease of reference, replacement formal drawings are also attached to this paper.

Rejections under 35 U.S.C. § 103:

The Applicant respectfully requests that the rejection of claims 1-12 under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 5, 802,864 to Yarbrough et al. ("Yarbrough") be withdrawn. As will be fully explained below, Yarbrough fails to raise a *prima facie* case of obviousness against the subject matter defined in independent claims 1, 7, and 10 for at least the following reasons. First, Yarbrough does not disclose, teach, or suggest all the features defined in independent claims 1, 7, and 10. Second, the requisite suggestion or motivation to modify Yarbrough so as to arrive at the claimed invention is lacking. Third, even if Yarbrough were modified, the resulting system fails to disclose, teach, or suggest the claimed invention, as defined in independent claims 1, 7, and 10.

Considering first whether Yarbrough discloses, teaches, or suggests all of the claimed features, in contrast to the Office's assertion, the cooling system described in Yarbrough fails to disclose, teach, or suggest a multifunctional thermal installation, as defined in the claims. In formulating the rejection, the Office has ignored certain features of the claimed invention. For instance, the Office has not discussed or provided any support that Yarbrough discloses, teaches, or suggests that when the room is being heated, the temperature of water in the water heater decreases. Nor has the Office provided any support that Yarbrough discloses, teaches, or suggests a system that can supply heat to the room when the switch valve is connected to the second group of heat exchangers disposed in the room, or can extract heat from the room

when the switch valve is connected to the first group of heat exchangers. On this basis alone, the Applicant respectfully requests that the 103(a) rejection of the claims be withdrawn.

Notwithstanding the Examiner's failure to acknowledge at least the above-mentioned features of the claimed invention, the Applicant submits that Yarbrough does not disclose, teach, or suggest a multifunctional thermal installation, as defined in the claims. Specifically, as defined in independent claims 1 and 7, cooling the room compensates for increasing the temperature of the water in the water heater, and decreasing the temperature of the water in the water heater compensates for heating the room. However, Yarbrough fails to disclose, teach, or suggest using the system described in Yarbrough to heat the room. Nor does Yarbrough disclose, teach, or suggest heating the room by decreasing the temperature of the water in the conduit 42.

Furthermore, even if Yarbrough could be modified such that the system described in Yarbrough can be used to heat up the room (a proposition with which the Applicant disagrees), the room can be heated because of the temperature of the water in the water conduit. However, in Yarbrough, decreasing the temperature of the water in the water conduit results in decreasing the temperature of the water in the pool. This occurs because the low temperature water in the water conduit is constantly being replaced by the heated water from the pool. As such, making the latter modification to the system described in Yarbrough makes the system unsuitable for its intended purpose of heating the pool.

Yet further, in the claimed invention, the multifunctional thermal installation is configured to supply heat to the room when the switch valve is connected to the second group of heat exchangers disposed in the room, and the installation is configured to extract heat from the room when the switch valve is connected to the first group of heat exchangers. Yarbrough, however, fails to disclose, teach, or suggest interchanging the connections to the switch valve. Additionally, Yarbrough fails to disclose, teach, or suggest that by

interchanging the group of heat exchangers connected to the switch valve, different functions and results can be achieved (i.e., the temperature in the room can be increased or decreased).

Still further, even if Yarbrough were modified, the resulting system could not have supplied heat to the room by connecting the switch valve to the second group of heat exchangers disposed in the room. Specifically, in Yarbrough, the switch valve has three outputs two of which (32a and 32b) are connected to the alleged water heater 40 and the third output 32c is connected to the evaporator 80 defined in the room. Thus, in the system described in Yarbrough, the switch valve is connected to both heat exchangers simultaneously and at all times. As such, the connections between the valve and the heat exchangers of Yarbrough cannot be interchanged. Additionally, irrespective that the switch valve is connected to the heat exchangers in the room and the heat exchangers in the water heater simultaneously, only one outcome can be achieved (i.e., the room can be cooled and the temperature of the water in the pool can be increased).

Yet further, even if the output 32c of the switch valve as connected to the component 80 could have provided a heating system (a proposition with which the Applicant disagrees), the outputs 32a and 32b of the switch valve are still connected to the first set of heat exchangers in the water conduit 42 at all times. As such, the second set of heat exchangers in the room have to cool and heat the room simultaneously, rendering the system described in Yarbrough unsuitable for its intended purpose. In fact, by connecting the switch valve to the first set of heat exchangers and second set of heat exchangers simultaneously, Yarbrough teaches away from connecting one set of heat exchangers to the switch valve at a time. Moreover, the connecting of the switch valve to the heat exchangers in the room provides a cooling system in Yarbrough, thus deterring one of ordinary skill in the art to use such connection to provide a heating system (i.e., the opposite function), as defined in the claims.

Additionally, in the claimed invention, as defined in claim 10, the compressor is defined inside the water heater. In Yarbrough, however, the compressor is defined outside the water heater. Furthermore, the type of the water heater 42 described in Yarbrough would have to be changed and the system of Yarbrough would have to be modified to accommodate the defining of the compressor inside the water heater. The Applicant respectfully traverses the Office's assertion that the component 10 of Yarbrough is the water heater. Specifically, if the component 10 were considered to be the water heater, the system described in Yarbrough also defines the condenser as well as the switch valve inside the alleged water heater 10.

Yet further, in the claimed invention, the water heater is connected to an underground well, and not a pool. As such, the swimming pool disclosed in Yarbrough is not disclosed, taught, or suggested to be an underground swimming pool. It is submitted that if the swimming pool disclosed in Yarbrough were to be modified to be an underground swimming pool, as modified, the underground swimming pool would be unsuitable for its intended purpose.

Accordingly, for at least the foregoing reasons, independent claims 1, 7, and 10 are patentable under 35 U.S.C. § 103(a) over Yarbrough. Likewise, dependent claims 2-6, 8 and 9, 11 and 12, each of which ultimately depends from the applicable independent claim are patentable under 35 U.S.C. 103(a) Yarbrough for at least the same reasons set forth above with respect to the corresponding independent claim 1, 7, or 10.

In view of the foregoing, the Applicant respectfully requests reconsideration and reexamination of claims 1-12 and submits that these claims are in condition for allowance. Accordingly, a Notice of Allowance is respectfully requested. In the event a telephone conference would expedite the prosecution of this application, the Examiner may contact the undersigned at (408) 774-6913. If any fees are due in connection with the filing of this paper,

App. No. 10/751,083

Request for Reconsideration Dated April 12, 2005

Response to the Office Action Dated October 12, 2004

the Commissioner is authorized to charge such fees to Deposit Account No. 50-0805 (Order No. BSPAP002C). A copy of the transmittal is enclosed for this purpose.

Respectfully submitted,
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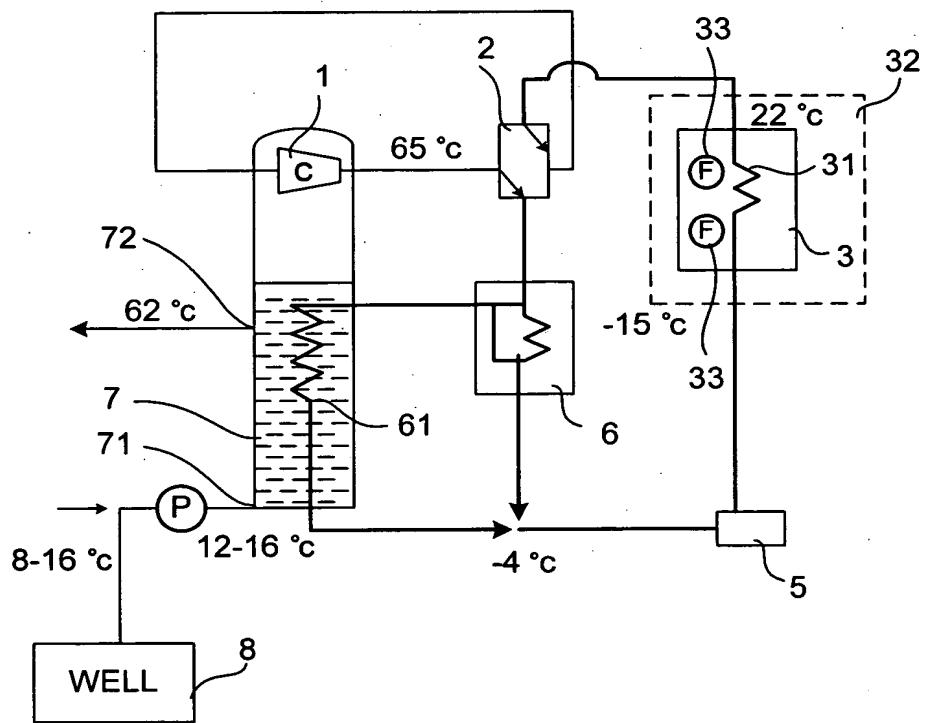


FIG. 1

Replacement Sheet

Title: MULTIFUNCTIONAL THERMAL INSTALLATION

Inventor: Hongsun Hua Application No.: 10/751,083 Docket No. BSPAP002C

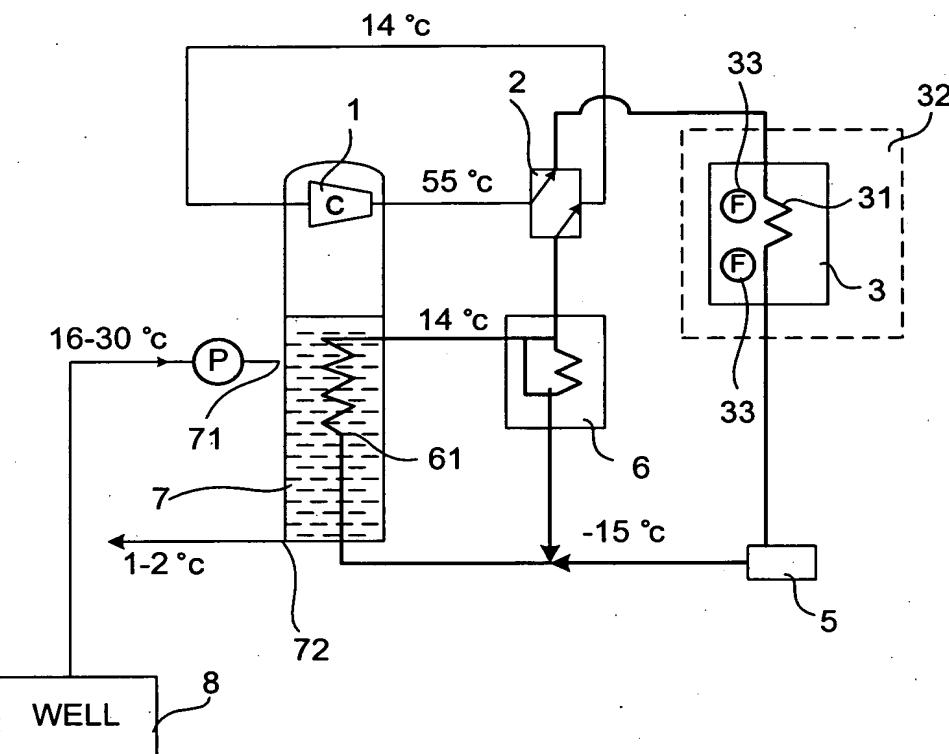


FIG. 2